

Todd and Rafferty Machine Company
Van Houten Street and McGee Alley
Paterson, New Jersey
Passaic County

HAER No. NJ-5

HAER
NJ,
16-PAT,
22-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED DRAWINGS

ADDENDUM
FOLLOWS...

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20240

HISTORIC AMERICAN ENGINEERING RECORD

TODD AND RAFFERTY MACHINE COMPANY
NJ-5

HAER
NJ,
16- PAT,
22-

DATE: ca. 1872

LOCATION: Van Houten Street And McGee Alley

DESIGNED BY: Unknown

OWNER: Todd Enterprises

SIGNIFICANCE: In its versatility and adaptability the Todd Mill is representative of many of the mill buildings in the Historic District of Paterson. Probably designed as a woolen mill, the original structure operated for many years as a cotton mill before undergoing extensive renovation and being converted to the manufacture of machinery. After being used as a silk mill during the early 1900s, the building was occupied by a number of small, textile products businesses, and has served most recently as a warehouse.

While structures have existed on the site of the Todd Mill since before 1815, the present building dates from the 1870s when an earlier complex was completely reconstructed in brick. Its greatest prosperity occurred during the second half of the nineteenth century when it was known throughout the nation and the world as a producer of textile machinery, stationary and portable steam engines, and boilers.

HISTORIAN: Joseph McCarthy, 1974

TRANSMITTED BY: Monica E. Hawley, Historian, 1983

Beginning on said Boudinot Street at the westerly corner of the Mill Lot now occupied by Richard Ward and running thence westerly along said Street Two hundred feet to the lot now occupied by Oshea Wilder thence along the line of Wilder's Lot northerly to the Oshea Wilder's lot northerly to the Banks of the Passaic River, thence Easterly along the said River to the lot now occupied by Richard Ward aforesaid thence along the westerly Bounds of the last mentioned Mill Lot in a Southerly direction to the Place of Beginning.¹

The Todd Mill lot was originally sold by the Society for the Establishment of Useful Manufactures in early 1813 to Roswell Colt for \$2500.00² The lot was located on the Lower Raceway along Boudinot Street (now Van Houten) and the Passaic River and the deed included the right to take 12" square (144 square inches) from the raceway. Except perhaps for more recent and accurate surveys,³ the mill plot has remained intact to the present. Changes have taken place however in ownership and in the kind, size, and scope of the buildings and resident business operations.

Within two weeks Colt conveyed the property to David Parish for \$3750.00.⁴ It is not known whether Parish planned to use the lot for business, but it is unlikely that there were any buildings existing on the grounds when he bought the lot. He was expressly denied the right of making powder or tanning leather on the premises, a limitation common to the deeds granted by the SUM and a continuing stricture. Less than nine months later Parish sold the property to Daniel Holsman for \$12,000.00. This deed included "all improvements and buildings thereon erected."⁵ The new wording of the deed and the trebled price indicate that Parish built the first mill on the property, the "Home Mill," perhaps specifically for Holsman.

Although the mill may have been originally intended to serve as a woolen factory⁶ it was remembered as a cotton mill at least "as far back as 1822."⁷ After weathering the ruinous business slump of 1815, Holsman established a successful operation in the spinning and weaving of cotton by the mid-1820's. The production capacity and output of the mill remained fairly constant throughout the decade. Taking 1827 as a typical year, records show that Holsman, capitalized at \$44,800.00, was running 40 looms and 2016 spindles; he was using 2750 lbs. of cotton to produce 2500 lbs. of yarn and was weaving 6000 yards for cloth per week. His 97 men, women and children employees shared a weekly wage of \$365.00⁸ The mill was rebuilt in 1829. Sometime in the 1830's, probably after 1832, Holsman removed his business from the mill and leased the premises to John C. Benson and John Rutan who used it to spin yarns on commission; about 1840 Stark and Parsons took over occupancy, also as spinners.⁹

Catharine Holsman, Daniel's widow, owned the mill lot until November 1850 when she sold it to Joseph C. Todd, Philip Rafferty, and Daniel Mackey for \$18,000.00.¹⁰ These gentlemen represented and owned the newly formed Todd, Mackey & Co. Todd and Mackey had started in 1844 with a small machine shop in the Nightingale Mill where they fabricated flax and hemp spinning equipment. Two years later they moved to the Bradley Mill (Machinists' Association) where Rafferty joined them in 1849.¹¹ Almost immediately upon acquiring the Holsman Mill the new company erected a foundry, a good indication that the firm was beginning to expand. Mackey retired in 1855.¹² The firm, now named Todd & Rafferty, widened its scope of production in 1857 by adding stationary steam engines to its established manufacture of textile machinery.¹³ By 1860 capital

investment was \$60,000.00 and they were making \$80,000.00 worth of machinery a year;¹⁴ much of this represented rope-making machines recognized throughout the world for their excellent design and the quality of the yarn they spun.

The company's growth during the 1860's may be called extraordinary. This can be clearly shown by reference to the Census of 1870.¹⁵ Now capitalized at a total of \$280,000.00,¹⁶ they were annually converting \$219,000.00 worth of raw materials into \$397,000.00 worth of castings, engines, and textile hardware; 281 workers were paid \$130,000.00. In 1872 the machine-making operation was combined with a boiler works on Railroad Avenue in which Todd and Rafferty also held a major interest¹⁷ and the Todd & Rafferty Machine Company was organized. On April 5th of that year the mill lot was conveyed to the new company.¹⁸

The history of building construction on the lot to this period is somewhat less definitive though a probable outline can be traced from a combined use of written and physical (architectural) evidence. The original Holsman or Home Mill (ca. 1813) was probably completely reconstructed and enlarged in 1829 (to approximately 40'X75'). This conclusion is based on the existence of a stone bearing that date and still in place in one of the old brownstone foundation walls in the basement of the present Todd & Rafferty building. By 1850 two smaller buildings appeared on the property, one occupied by Abraham Carter, a bobbin manufacturer, the other by McGinnis and Jackson, probably used as a cotton mill.¹⁹ Carter's bobbin mill continued to be used until 1864 by the firm of Daggers & Row among others. The McGinnis & Jackson factory, at the southwest

corner of the lot off the raceway, was demolished in or by 1851 when Todd, Mackey & Co. erected their brick foundry on that spot. Sometime during the 1850's an attached back building (40'X75') was added to the old Holsman Mill doubling its size; the foundry, according to a map of 1860,²⁰ measured 40'X100'.

Reportedly, the entire mill complex was reconstructed and extensively revised in the early 1870's.²¹ This is supported by physical evidence in the main building. The 1829 datestone referred to above is located in what is now an inner wall of the inside corner of the L-shaped structure. Since such positioning of a datestone goes against contemporary standard building practice (they are always in an outside wall) it is probable that the 1870's rebuilding represents a shift of the main mill towards the raceway incorporating certain of the foundation walls of the old building. The foundry was also rebuilt at this time, or perhaps simply extended; a large riverfront structure, a yard building, and a box shop were added to the complex.²² The brick mill and foundry remain today.

For reasons which remain unknown, but may relate to the depression of the post-1873 period, the Todd & Rafferty Machine Co. failed in 1877. Operations ceased for eighteen months. Todd then leased the machine-making operation on Van Houten Street from company's receiver Robert S. Hughes, and rekindled the former business in a small way;²³ it was now known as the J.C. Todd Machine Co. He bought the mill lot in 1883²⁴ and continued in business until the mid-1890's when he again ran into financial difficulties. In 1898 the property was confiscated by the City of Paterson for back taxes²⁵ and sold to the law firm of Pennington & Kireker in 1904 for \$6,000.00.²⁶ Robert Muller, Jr. bought it

in 1907 for \$45,000.00.²⁷ He ran it as a tenant mill for over eight years, leasing space to various silk manufacturers.²⁸ A survey taken at this time shows that of the buildings erected in the 1870's only the main mill and the foundry were still standing; a small one-story frame mill (35'X84') replaced the box shop in the southeast corner of the lot near the Lower Raceway.²⁹ By 1915 this too was gone.³⁰

During the twentieth century the mill lot changed hands several times returning to the SUM in 1932.³¹ In 1945 the lot was included in the large transfer of property and water rights from the SUM to the City of Paterson.³² When the City sold the property to the Todd Mills Realty Co. in 1946, rights to water in the Lower Raceway were specifically excluded.³³ The mill was then providing space for seventeen tenants engaged in various small businesses related to textile products. The lot and buildings are presently owned by Todd Enterprises and leased to Allied Textile Printers, Inc.³⁴ primarily for warehousing; until recently the basement was used for dye operations. Many observable alterations and additions have been made on the main mill and the foundry; a large brick building now exists at the back of the plot near the river, used for textile printing and dyeing.

The Todd Mill (and the original Holsman Mill) took its water from the Lower Race with a gate within the lot controlling the flow onto the wheel. The location of the head and tail races running from the canal through the main mill and down into the river are shown on several maps.³⁵ Portions of the system are still in evidence on the lot. Closure repairs on the inner face of the front

wall of the main building basement show the position of what was probably a flume. This is directly aligned with a chamber below the basement floor leading to the still existing tail race. The end portions of the tail race can be seen through two exhaust flumes opening on the river side of the present rear building. From 1813 through 1932 the mill had continuous rights to one square foot of water. For at least part of the decade of the 1860's, the period of Todd & Rafferty's exceptional growth, an additional two square feet of water were rented.³⁶ The foundry also used water power probably taking it by mechanical transmission from the main mill.³⁷ By 1880 this power was generated by two 12-foot diameter, 40-horsepower overshot water wheels.³⁸ The first direct evidence of steam power being used in the Todd Mill appears in a mortgage of 1895 which refers to a 100-horespower engine with two boilers.³⁹ Steam power at this time, however, was still considered as a supplement to rather than a replacement of water power. Robert Muller in 1907 was considering the installation of a new 21-inch diameter, 62-horespower Hercules water turbine.⁴⁰ This simultaneous use of water and steam power continued until about 1911 at which time the mill is listed as utilizing an 80-horespower steam engine and having no water wheel.⁴¹ Steam probably remained the sole source of power until it was replaced by electricity.

Footnotes - Todd Mill

1. Deed, Jan. 20, 1813. Passaic/Essex Co. Deeds, Bk. C, pp. 29-31.
2. Soon to be Governor and already major stockholder of the SUM.
3. Geiger Survey of Todd Mills, Dec. 2, 1946. Passaic Co. Deeds, Bk. P-46, pp. 565-569.
4. Deed, Feb. 3, 1813. Passaic/Essex Co. Deeds, Bk. A, p. 605.
5. Deed, Nov. 12, 1813. Passaic/Essex Co. Deeds, Bk. B, p. 631.
6. William Wright, "Manufactures of Paterson," Scientific American (1859), p. 315.
7. L. R. Trumbull, A History of Industrial Paterson (1882), p. 55.
8. Samuel Fischer, Census of Paterson, 1827, reprinted 1877 by William Nelson.
9. Trumbull, p. 55. Holsman was probably still in the mill in 1832 because Fishcher listed him as having two cotton mills in Paterson in that year although their names or locations are not specified.
10. Deed, Nov. 1, 1850. Passaic Co. Deeds, Bk. P, pp. 454-456.
11. Trumbull, pp. 79-80.
12. He waited however until 1859 to convey his one-third share in the mill to his former parnters. Deed, Jan. 22, 1859. Bk. E-2, p. 221.
13. Trumbull, p. 86.
14. Eighth Census, Schedule 5. Products of Industry in West Ward Paterson City in County of Passaic State of New Jersey during the year ending June 1, 1860.
15. Ninth Census.
16. \$100,000.00 in the foundry and \$180,000.00 in the machinshop (main mill).
17. The third partner was Samuel Smith who also became a partner in the new company.
18. Deed, Passaic Co. Deeds, Bk. M-4, pp. 492-495. The sale price was \$101,700.00 but this included a second lot, approximately 25'X200', located on North Main Street.
19. See Map of Paterson, 1850. Passaic Co. Deeds.
20. See Map of Paterson, 1860. Passaic Co. Deeds.

21. Trumbull, p. 86. Also, Charles A. Shriner, Paterson, New Jersey (1890).
22. See Atlas of Paterson, 1877. Passaic Co. Deeds.
23. Rafferty had died in 1872 or 1873. According to the 1880 Census Todd recapitalized at \$15,000.00 and had an annual production of \$112,000.00 in machinery.
24. Deed, Nov. 4, 1883. Passaic Co. Deeds, Bk. Q-7, pp. 29-49. The price was \$60,000.00.
25. See Deed, April 18, 1907. Passaic Co. Deeds, Bk. I-18, pp. 484-487.
26. Deed, May 25, 1904. Passaic Co. Deeds, Bk. N-16, pp. 193-222.
27. Deed, Sept. 6, 1907. Passaic Co. Deeds, Bk. T-18, pp. 319-321.
28. Letter, Dec. 17, 1907, from John H. Cook (Hydraulic Engineer for the SUM) to Robert Muller, Jr. Passaic Co. Historical Society. The tenants in 1907 were Collins and Nolan, Finnegan & Zabriskie, and Prescott & Waverly.
29. Survey made Sept. 14, 1907 for Fidelity Trust Co. by J. S. Bauer, Civil Engineer.
30. See Atlas of Paterson, 1915. Passaic Co. Deeds.
31. Deed, Sept. 30, 1932. Passaic Co. Deeds, Bk. H-37, pp. 26-28.
32. Deed, Oct. 19, 1945. Passaic Co. Deeds, Bk. O-45, pp. 47-ff.
33. Deed, Dec. 27, 1946. Passaic Co. Deeds, Bk. P-46, pp. 565-569.
34. Deed, Sept. 25, 1973. Passaic Co. Deeds, Bk. S-94, pp. 341-348.
35. Map of Paterson, 1850; Map of Paterson, 1860; Atlas of Paterson, 1915. Passaic Co. Deeds. Also, Survey of Sept. 14, 1907 by J. S. Bauer.
36. Referred to in Minutes of the SUM, Oct. 1, 1866. The lease itself is unrecorded.
37. See Ninth Census, 1870.
38. Tenth Census, 1880. Schedule 3. Manufactures - Products of Industry in Paterson.
39. Mortgage, Aug. 19, 1895. Passaic Co. Deeds, Bk. T-4 (Mortgages), p. 446.
40. Letter, Oct. 29, 1907. John H. Cook to Robert Muller, Jr. Passaic Co. Historical Society.
41. Letter, May 9, 1911. "Data Concerning Possible Market for Steam Along the Canals of the SUM," Passaic Co. Historical Society.

Addendum to:
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	Left and right overlap: 95%
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